

PATIENT SATISFACTION: AN EXAMINATION
OF THE CONCEPT AND PRESENTATION OF A
STRATEGIC APPROACH FOR ITS ASSESSMENT
AND USE WITHIN A HEALTH CARE SYSTEM

Mark Ernest Babbitt



NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

PATIENT SATISFACTION:
AN EXAMINATION OF THE CONCEPT AND PRESENTATION
OF A STRATEGIC APPROACH FOR ITS ASSESSMENT
AND USE WITHIN A HEALTH CARE SYSTEM

by

Mark Ernest Babbitt

June 1981

Thesis Advisor:

Reuben T. Harris

Approved for public release; distribution unlimited

T1992 44

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER		2. GOVT ACCESSION NO.	
3. TITLE (and Subtitle) Patient Satisfaction: An Examination of the Concept and Presentation of a Strategic Approach for Its Assessment and Use Within a Health Care System		4. RECIPIENT'S CATALOG NUMBER	
5. AUTHOR(s) Mark Ernest Babbitt		6. TYPE OF REPORT & PERIOD COVERED Master's Thesis: June 1981	
7. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		8. PERFORMING ORG. REPORT NUMBER	
9. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		10. CONTRACT OR GRANT NUMBER(s)	
11. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Naval Postgraduate School Monterey, California 93940		12. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
13. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		14. REPORT DATE June 1981	
15. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		15. NUMBER OF PAGES 101	
16. SUPPLEMENTARY NOTES		16. SECURITY CLASS. (of this report) Unclassified	
17. KEY WORDS (Continue on reverse side if necessary and identify by block number) Patient Satisfaction Patient Perceptions of Medical Care Quality of Care Assessments Patient Satisfaction Surveys		17a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
18. ABSTRACT (Continue on reverse side if necessary and identify by block number) Recent years have seen increased attention being devoted to issues relating to quality of medical care and its evaluation. The evaluation methods currently being used are technically based and are conducted essentially by the same groups which provide the care. An alternative approach and one which provides a contrasting perspective to the technical evaluation is that which determines the extent to which patients are satisfied with			

the care received.

This study examines the concept of patient satisfaction and the manner in which patients assess medical care and services. The desirability of the dual perspective of both providers and patients in the assessment of medical care and services is supported and a problem-oriented methodology which is adaptable to the various levels within a health care system is presented. An indirect test of the methodology which utilizes the opinions of a sample of physicians is presented and its finding appear to validate the methodology and indicate a relatively high potential for physicians' acceptance of this approach.

Approved for public release, distribution unlimited

Patient Satisfaction:
An Examination of the Concept and Presentation
of a Strategic Approach for Its Assessment
and Use Within a Health Care System

by

Mark Ernest Babbitt
Lieutenant, Medical Service Corps, United States Navy
B.S., Southern Illinois University, 1979

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
June 1981

ABSTRACT

Recent years have seen increased attention being devoted to issues relating to quality of medical care and its evaluation. The evaluation methods currently being used are technically based and are conducted essentially by the same groups which provide the care. An alternative approach and one which provides a contrasting perspective to the technical evaluation is that which determines the extent to which patients are satisfied with the care received.

This study examines the concept of patient satisfaction and the manner in which patients assess medical care and services. The desirability of the dual perspective of both providers and patients in the assessment of medical care and services is supported and a problem-oriented methodology which is adaptable to the various levels within a health care system is presented. An indirect test of the methodology which utilizes the opinions of a sample of physicians is presented and its findings appear to validate the methodology and indicate a relatively high potential for physicians' acceptance of this approach.

TABLE OF CONTENTS

I.	INTRODUCTION -----	8
A.	BACKGROUND -----	8
B.	PATIENT SATISFACTION: A PERSPECTIVE LONG NEGLECTED -----	10
C.	PURPOSE -----	12
II.	EVALUATING QUALITY OF CARE -----	14
A.	QUALITY OF CARE: A PROBLEM OF DEFINITION AND FOCUS -----	14
B.	CURRENT APPROACHES TO EVALUATION OF CARE --	16
C.	PATIENT SATISFACTION: AN ALTERNATIVE APPROACH -----	20
D.	LITERATURE REVIEW -----	22
E.	SUMMARY -----	36
III.	A STRATEGIC APPROACH FOR ASSESSING PATIENT SATISFACTION -----	38
A.	BASIC REASONS FOR CONDUCTING PATIENT SATISFACTION SURVEYS -----	40
B.	SPECIFIC PURPOSES OF PATIENT SATISFACTION SURVEYS -----	42
C.	DIMENSIONS OF PATIENT SATISFACTION -----	45
D.	SURVEY DEVELOPMENT: FRAMEWORK FOR A DECISION -----	51
E.	STRATEGIC GUIDELINES FOR SURVEY IMPLEMENTATION -----	55
F.	SUMMARY -----	58

IV.	PHYSICIANS' PERSPECTIVES ON PATIENT ASSESSMENTS OF CARE -----	61
A.	RATIONALE AND METHODOLOGY -----	61
B.	PATIENT SATISFACTION AND ITS RELATIONSHIP TO QUALITY OF CARE -----	63
C.	PHYSICIANS' PERSPECTIVES ON THE WAY PATIENTS ASSESS CARE -----	66
D.	PHYSICIANS' USE OF AND RESPONSIVENESS TO PATIENT SURVEYS -----	73
E.	SUMMARY -----	75
V.	CONCLUSION -----	78
A.	FINDINGS AND CONCLUSIONS -----	78
B.	APPLICATIONS -----	81
C.	DIRECTIONS FOR FUTURE RESEARCH -----	83
APPENDIX A:	DIMENSIONS OF SATISFACTION ADDRESSED BY PREVIOUS SURVEYS AND STUDIES -----	86
APPENDIX B:	SAMPLE QUESTIONS/STATEMENTS RELATING TO THE VARIOUS DIMENSIONS OF SATISFACTION -----	90
APPENDIX C:	PHYSICIAN INTERVIEW FORMAT -----	95
	LIST OF REFERENCES -----	96
	INITIAL DISTRIBUTION LIST -----	101

LIST OF TABLES

I.	Representative Dimensions of Patient Perceptions Identified in the Literature -----	30
II.	Survey Content Decision Matrix -----	53
III.	Physicians' Perceptions of the Way Patients Assess Care -----	70

I. INTRODUCTION

A. BACKGROUND

Over the past few years, the Navy Medical Department and those of the other military services have been the subject of increasing public attention which has focused to a great extent on the gap between the number of military physicians needed and the number they actually have [Ref. 1,2,3]. One of the efforts directed toward resolving this problem involves an increased reliance being placed on the utilization of nonphysician providers of care, i.e., nurse practitioners, physicians' assistants, and various medical technicians (an example is the Navy independent duty hospital corpsman). A number of concerns regarding the increased utilization of nonphysician providers of care have been raised both in the military and civilian sectors of the medical community, as well as from the consumers or beneficiaries of the medical departments. The concerns and issues raised have focused largely on the quality of care being provided and on the consumers' perceptions of the services which they have received. These issues have a high emotional impact on health care professionals and consumers alike. Such issues and their related problems have consumed vast amounts of time and resources of military health care facilities, headquarters activities, and the offices of numerous other governmental activities.

Health care professionals have long been concerned with improving the quality of health care provided to their patients. In this regard, various means have been established for evaluating the care and services provided. In the past, Navy medical facilities have evaluated the quality of health services through a number of peer review groups, including the tissue, safety, pharmacy and therapeutics, medical records, transfusion, medical audit, utilization review, and credentialing committees. These groups were, for the most part, independent of each other and in many instances functioned as so many closed systems within the hospital. That is, there usually was very little coordination of activities or interaction between committees.

Risk management programs have also been utilized in most naval medical facilities. Such programs were designed to increase the quality of health services by reducing the potential for patient injury. This has been accomplished in many facilities by the collection and analysis of incident reports, patient complaints, safety reports, and liability claims. These activities have been conducted independently of quality assurance activities.

In response to recently developed standards of the Joint Commission for Accreditation of Hospitals [Ref. 4], efforts are currently underway within the Navy Bureau of Medicine and Surgery (BUMED) to develop a systems approach to quality assurance activities within the hospital. The approach being

developed will require the coordination of all quality assurance and risk management activities into a single integrated program. The primary objective of this program, as listed in the proposed directive, is "Assurance of High Quality Health Care. This involves: (1) identification of problems or elements of care that are being performed suboptimally; (2) assessment and corrective action to solve the problem and improve performance; and (3) monitoring and documenting changes after improvement is implemented." For the purposes of the program, quality assurance is defined as those activities or program components designed to evaluate patient care and to identify, study, and correct deficiencies found in the patient care process. These activities will be conducted by key personnel who serve the patient in various ways, which includes all health professionals and support personnel. The risk management component of the program is designed to manage risks, control liability, reduce claims, and improve health care delivery. The activities which comprise this component of the program include patient safety reviews, incident reporting, analysis of various inspection/audit reports, liability claims review and assessment, patient contact representative data, and patient satisfaction assessment.

B. PATIENT SATISFACTION: A PERSPECTIVE LONG NEGLECTED

As noted previously, the medical community has established a variety of methods for evaluating or assessing the

quality of care. The determination of quality is based on a conceptual and operational definition of what quality of medical care means. The criteria for quality are based on value judgements that are applied to the various aspects of medical care. These determinations and judgements presently are solely accomplished within the professional community which provides the care. The rationale presented for this self evaluation usually revolves around the professionalism of the medical field. This field is indeed a true "profession", one of the traits of which being that the practitioner is relatively free of lay evaluation and control [Ref. 5]. Many medical professionals have considered the patient as being incapable of evaluating professional performance and have therefore retained control over evaluation of professional conduct themselves.

It is recognized that the measures currently being used are of fundamental value and are an obvious starting point for assessing quality of care and services. Although the variety of methods in use involve many detailed technical areas, they all can be viewed in general as being technically based. An alternative approach to evaluating the quality of care and services in a health care system, and one which offers a contrasting perspective, is that which determines the extent to which the patients or consumers of the services are satisfied with the various aspects of the care received. Medical professionals have not traditionally considered this

approach in their quality assurance activities. To date they have devoted minimal effort and attention to this means of evaluating health care services. This is not to advocate that professionals discontinue their current activities, but rather is founded on the view that comprehensiveness must be the basis for evaluation. Therefore, the determination of quality in health care services should not be made solely by the professionals which provide them. Although many patients may be ignorant or easily mislead about the technical services of the hospital, they may also be the best, and possibly the only, judges of "care" in its basic definition. It is posited that the dual perspective of patient and provider would establish a more objective and perhaps accurate determination of "quality", one which would then reflect both the "curing" and "caring" aspects of health care. By utilizing these dual perspectives, with respect to quality of care and services, it is hypothesized that the Navy Medical Department's Quality Assurance/Risk Management Program would possess an increased capability to accurately assess the quality of care, identify problem areas, and improve the monitoring and documentation of any changes that are implemented.

C. PURPOSE

This paper will examine the topic of patient satisfaction regarding medical care and services. In recognition of BUMED's systems approach to the quality assurance/risk

management program, the focus of this examination will therefore be on the health care system and the potential utility which patient satisfaction data may be to various elements within that system. This examination will also review the possible reasons for collecting such information as well as the specific uses in which it may be employed.

Chapter II will present a review of the current approaches to medical care evaluation and examine the major works in the literature which have dealt with the concept of patient satisfaction, the issues related to it, and the manner in which it has been used. In Chapter III a practical methodology will be presented which may assist in preparing a patient satisfaction survey. The methodology involves focusing on the problem at hand and then the dimensions of satisfaction which are most relevant to that problem, whether they involve a macrosystems view or the concerns of a small clinic manager. An explanation of the basis and use of this contingency approach will also be included. Chapter IV will present the views of a sample of Navy medical professionals on the utilization of this perspective when evaluating various elements within the health care system. Finally, the last chapter will present conclusions of the study and areas for possible future research concerning this subject.

II. EVALUATING QUALITY OF CARE

A. QUALITY OF CARE: A PROBLEM OF DEFINITION AND FOCUS

The nature of studies attempting to evaluate the quality of care as well as their methodologies vary in accordance with their emphasis on care. For the purposes of this study, the terms medical care and health care include the idea of patient care and emphasize the appropriateness, availability, assessability, and acceptability of a full range of services to prevent illness and disease and to restore and maintain health.

In order for one to evaluate the quality of care, it is first necessary to consider what quality of care means. Considerable attention has been devoted to clarifying and defining the concepts of quality of care and the systems which may be used to assess and evaluate it. Many definitions of quality have been proposed ranging from statements of the ideal to minimal standards. A number of problems are present at this fundamental level. In medical care this is a very difficult concept to define. Donabedian [Ref. 6] asserts that the definition of quality may be almost anything one wishes it to be, although it is ordinarily a reflection of current values and goals in the medical care system and in the larger society of which it is a part. He also considered that the criteria used to define quality would influence the method employed to evaluate it.

DeGeyndt [Ref. 7] cited two definitions of quality which support Donabedian's point: In 1933, Lee and Jones defined quality as, "the kind of medicine practiced and taught by the recognized leaders of the medical profession at a given time or period of social, cultural, and professional development in a community." In 1958, Esselstyn wrote that, "standards of quality of care should be based on the degree to which this care is available, acceptable, comprehensive, continuous, and documented, as well as the extent to which adequate therapy is based on an accurate diagnosis and not on symptomatology." Upon examining these two examples, it can be seen that a definition of quality can place a limitation on its meaning and may reflect the values of the author. The definition may also determine the criteria to be used in evaluating the care. In Lee and Jones' criteria, the definition suggests a methodology to evaluate quality, namely, by comparing the providers actions with those of the "recognized leaders" in a similar situation. This is essentially what is done in the medical audit method of evaluating care. Esselstyn's definition is broader, in that he is also concerned with the content of care (diagnosis, therapy, and documentation), but also considers the process (comprehensiveness and continuity) as well as the structure (availability and acceptability). This definition focuses on the delivery and distribution of care, suggesting a method of evaluation similar to that in end-result type studies.

From the two previous examples, it has been shown that in defining quality, one reflects the values of the author and implicitly advocates the criteria to be used in evaluating it. In a study of the problems involved in evaluating care in outpatient departments, Klein [Ref. 8] concluded that, because of the multidimensionality of care, it is likely that there will never be a single comprehensive criterion by which it may be evaluated. This multidimensionality also explains the existence of the numerous methods of evaluating care. It is not within the scope of this study to review all of those methods, but rather to describe those approaches which are most commonly used (technical perspective of providers). These approaches will establish a framework through which we may then consider an additional method (patient satisfaction) of evaluating the quality of care and the rationale for using this method.

B. CURRENT APPROACH TO EVALUATION OF CARE

The current literature concerning quality of care is replete with studies which have classified the various approaches to the evaluation of quality in medical care. There is, however, a high degree of commonality in the majority of them to the extent that three basic approaches can be identified. They are assessments based on structural, process, and outcome criteria relating to medical care and services.

1. Structural Approach

The structural approach to assessment of quality is concerned with the setting in which the care is delivered and the resources that are used in the process. It may even include reviews of administrative and other processes that support and direct the provision of care; however, it is primarily concerned with the qualifications of the medical staff, their experience and organization, the administrative structure and operation of programs, and other organizational variables. The basic assumption which underlies this approach is that, given the proper setting and resources, good medical care will follow. This approach is by far the easiest and least expensive way of evaluating quality. The information necessary to accomplish this is fairly accessible. Many early efforts at quality assurance were using this type approach when requiring licenses or specialty board certification for professionals and accreditation for institutions. The major limitation to this approach is that the relationship between structure and the outcome of care is very weak. For example, the fact that all physicians in a given facility are certified does not necessarily reflect on the quality of care received by any particular patient.

2. Process Approach

The process approach to evaluation of care involves an examination of what is done to or for the patient including how the physician used resources and knowledge for

actual care. Judgements using this approach are based on considerations such as the appropriateness, completeness and redundancy of information obtained through clinical history, physical examination and diagnostic tests; justification of diagnosis and therapy; technical competence in the performance of diagnostic and therapeutic procedures; evidence of preventive management in health and illness; coordination and continuity of care; and acceptability of care to the recipient. The process view tends toward the concept of the "whole patient". It evaluates not only the work of the physician, but also the contributions of other health care personnel. The rationale behind this approach is that if there is effective coordination of the health care team and if the right things are done, then the outcome will be the best that can be attained. The information used in process assessment generally is gathered from patient records, record abstracts, and direct observation or patient interviews. This approach requires a great deal of attention to specifying the standards to be used in assessing the care. This approach can be very objective if the standards are well defined beforehand, that is, if explicit criteria are used. Donabedian [Ref. 9] has posited that it is true that process measures are valid indicators of quality, but only to the extent that they relate to relevant outcomes. The disadvantage which one may encounter with this approach is that peer judgements may vary widely, thus criteria tend to be difficult to establish.

There has also been much discussion on the completeness of clinical records [Ref. 6] and whether, in assessing the quality of care based on the record, one is evaluating the record or the care provided. Proponents of process evaluation highlight the ease and economical advantages of this approach over the outcome type assessments and point out that processes can be examined retrospectively, concurrently, or prospectively [Ref. 10]. Currently this approach is the most commonly used in quality assurance activities.

3. Outcome Approach

The outcome approach focuses on the results of medical care. Conceptually, this approach is founded on the belief that the end result is the final criteria on which quality of care can be based and that this is the primary evidence by which quality can be assessed. Evaluations which use this approach attempt to find a measurable aspect of the health status of an individual and then determine the change which has taken place in that status as a result of the structure and process of medical care. In short, has the patient's problem been reduced or eliminated? An example of a measurable outcome which is commonly used is the removal of a diseased organ in surgery. The Performance Evaluation Procedure (PEP) for quality assessment, which is advocated by the Joint Commission for Accreditation of Hospitals, is a method which employs the outcome approach. A major disadvantage of outcome assessment is that although some outcomes are

generally unmistakable and easy to measure, many others are not so clearly defined or easy to measure. These may include patient attitudes and satisfactions, social restoration and physical disability and rehabilitation.

C. PATIENT SATISFACTION: AN ALTERNATIVE APPROACH

As a result of the many ideas of what quality is in medical care, a variety of approaches for assessing it have been developed. Because of the different definitions, each approach essentially limits its boundary around quality and may very well exclude other important aspects or dimensions. In the preceding review of the primary approaches to quality assessment, it can be seen that no single approach can be said to include all dimensions of medical care. It therefore seems logical that by using different approaches together, one would obtain an assessment of greater objectivity and reliability. Campbell and Fiske [Ref. 11] have asserted that each different dimension needs to be assessed in any valid evaluation of overall quality.

The quality assurance methods most commonly employed make a determination based primarily on a review of the technical adequacy of care. This is accomplished through several different methods by essentially the same professional group which provides the care. Although many different people may be involved in the process, the assessment is primarily based on one dimension and from one perspective,

the technical one. There are many people who are distressed by the near total domination that professionals have exercised over quality assessment [Ref. 9] and have argued that patients' values, preferences, and expectations be included in the definition and assessment of quality of medical care.

The modern health care system today is one of the most remarkable concentrations of science, technology, and medical art ever amassed. Tremendous progress has been made in diagnosing and treating patients. All too often, however, it is heard that procedures and tasks have become routinized to the extent that initiative and the capacity to respond to the desires and individual needs of patients has been stifled. On such occasions, patients have reported feeling quite helpless in a maze of technology and specialization. Patients are the virtual reason for the establishment and existence of health care systems and those systems should be acceptable to them as well as to the professionals which control and operate the system. The end result of the health care experience and its quality are influenced by the manner in which the consumer's attitudes and expectations and the provider's technical and support services interrelate. Aware of this problem, The Institute of Medicine has identified consumer participation as one of five "priority areas for quality assurance" [Ref. 12], and has begun to devote more research efforts on this subject. The Navy Medical Department has also recognized consumer satisfaction as an essential

priority in the total health care system [Ref. 13] and is now developing policies [Ref. 10] which concern the increased recognition and monitoring of consumer perceptions regarding health services.

Consumers already informally assess the quality of medical care they receive and take action accordingly. In many instances, though, such action is based on incomplete or inaccurate information. The challenge for health care professionals, then, is to find ways of increasing the consumer's involvement in the health care process; educating them to use resources more appropriately; and at the same time, draw upon their experiences and perceptions to assess quality of care and services.

D. LITERATURE REVIEW

In view of the increased use of medical services and of the demands for more "humane" health care, the issue of patient satisfaction has become a topic of importance to the lay public and scientific investigators, as well as to those who provide the care. In a recent message to all naval medical facilities [Ref. 14], Vice Admiral Arentzen, then the Navy Surgeon General, stated that "...it does us little good to provide quality medical care if the patient perceives it to be poor." As an alternative approach to evaluating medical care, the focus of this approach is on patient perceptions of care. In some studies, this approach has been grouped

with process and outcome type evaluations [e.g., Ref. 9]; however, Lebow [Ref. 15] and others [e.g., Ref. 16] have insisted that such labeling is an over simplification of an individual's perception of care. Lebow insists that these perceptions are more complex than either process or outcome evaluation and that a number of other factors affect the patient's perceptions which are not accounted for in those types of assessment. This section will review the literature which has addressed the concept of patient satisfaction and the issues relating to it.

1. Background

In spite of the fact that many professionals have questioned the validity and importance of evaluations that patients make of their medical experiences, studies which demonstrate their importance are being reported with increasing frequency. Since the earliest report of patient satisfaction, by Koos in 1955 [Ref. 17], there have been well in excess of one hundred articles and reports of studies on patient satisfaction which are easily identified in the published literature. This in itself attests to the belief that patient satisfaction is an important concept. Most of the studies concerning this topic have been conducted within the past ten years. It has been noted that the growing interest regarding patient evaluation of medical care and services is the result of several factors, including: (1) the increased concern with patient care among members of the medical

professions; (2) the influence of social scientists on research in medical settings; (3) a growing concern by the general population regarding the quality of medical services; (4) the developing interests of large organizations concerned with monitoring the health and care of their clients; and (5) the increased availability of government money for the study of all aspects of health [Ref. 6,9,10,12,15].

2. Reported Utilization of Patient Perceptions

Measures of patient perceptions of medical care and services have been employed in studies of: physician performance in clinics of various specialties [Ref. 17-19]; hospital care [Ref. 20,21]; outpatient and ambulatory services for numerous special interest groups [Ref. 22-27]; utilization of health services [Ref. 28-30]; various socio-demographic and psychological variables [Ref. 16,31-38]; and of health systems policy [Ref. 29,39-43]. The reported utilization of patient perceptions in these studies seem to fall into three general categories: (1) studies of satisfaction which concern the assessment of quality of care or services in specific areas and which are helpful and of use to those that manage those facilities; (2) studies which utilize the measurement of patient perceptions as an integral element of an analysis of a health care delivery systems policy; and (3) health services research studies which examine the concept of patient satisfaction, its dimensions, and the various means of collecting and utilizing such information.

The first category of studies shows a great deal of similarity in findings. There is general agreement that patients can distinguish between numerous aspects of medical care and services. On this point, however, there are several opinions about how many and which aspects they do distinguish. These range from one study of outpatient medical care, at the University of Oklahoma Medical Center [Ref. 24], in which patient concerns centered around doctor's interest in the patient, skill and thoroughness of care, and communication with the patient; to another study of households in central Illinois [Ref. 18], in which patients' perceptions dealt with physician conduct, continuity of care, accessibility of physicians, availability of hospitals/specialists, completeness of facilities, and availability of family doctors. The literature in this category is also in general agreement that there is little difference in the ways that different groups view health care. Starr et al [Ref. 44], in a study of patient expectations, summarized this point in noting that the upper and lower socioeconomic groups have become more homogeneous with regard to opinions about health care within the last three decades. In the majority of studies reviewed, patients reported a high degree of satisfaction with the care received. The few exceptions to this generalization may have been impacted on by factors external to the area being studied. For example, several studies [e.g., Ref. 37] noted that patients who were not satisfied with the community

in which they lived, were often not satisfied with their medical care. This may account for the high (60 percent) degree of dissatisfaction reported in one study of military health facilities [Ref. 42]. Contrary to a common belief among many health professionals that patients are concerned primarily with factors relating to access and convenience of care, there is evidence in the literature that patients place more importance on physician conduct. Other studies [e.g., Ref. 37] noted that patients' appraisal of physicians performance was highly correlated with professional criteria for assessing competent professional performance; however, there was no general agreement or disagreement in the literature on this point. It is generally agreed though that patients expect to have a comfortable interaction with the physician or other provider, who appears to be technically competent, and who answers their questions and gives adequate information about the patient's condition. In several studies [Ref. 5,26,37,38], it was reported that patients who were satisfied with their last visit to a doctor were significantly more likely to follow the doctor's orders than were those who were dissatisfied. Specific uses of patient satisfaction data which were reported concerned evaluating services in various clinics, to different special interest groups (e.g., college students, medicaid beneficiaries, military personnel), comparison of physicians and nonphysician providers of care, inpatient hospital care, and identifying other management areas that may be improved.

The second category of studies, those which employed patient/consumer perceptions as an element or consideration in analysis of health systems policy, for the most part agreed with the desirability of this data as an input to policy related decisions. One of the underlying reasons for this agreement seems to concern the relationship between satisfaction and utilization of health services. In a study of outpatient clinics in Rochester, New York, Roughman [Ref. 28], found evidence to conclude that the level of satisfaction with care and services significantly increased the predictability of utilization of those services. He also noted conversely that utilization, even controlling for the setting, does not increase the ability to predict satisfaction. The importance of this relationship is that potential utilization of services is a very important factor in developing plans or policies for a health care system. If patient satisfaction will contribute necessary information to this process, it should therefore be used. Edler [Ref. 21] reports that the Indiana Department of Mental Health has adopted this approach and has used a patient satisfaction scale, incorporated into a program of operations research, which established correlations between levels of satisfaction and levels of staffing. He reports that they are using the scale in conjunction with a nursing program which measures the staffing level according to the needs of the patient. Another study, by Harris and Whipple [Ref. 42] used patient perception data

which compared satisfaction of Navy Medical Department beneficiaries from military health care facilities and from the use of civilian medical facilities through the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). The data was gathered to help determine the feasibility of expanding available services at various military facilities and thereby reducing expenditures in the CHAMPUS program. The most common recommended and reported use of this type data in the studies reviewed was as an input to planning and evaluating health care programs. Storch [Ref. 41] insists that consumer input is increasingly necessary to help health care providers make difficult decisions about allocation of resources, decisions involving matters of life and death, those which involve ethics in human research, and many more. It appears that in many cases, consumers will involve themselves in policy matters, whether health professionals want it or not. One of the most obvious examples of this is the recent change in policy by the federal government concerning the funding of abortions, which was brought about largely by pressure from different groups of consumers/citizens. A more recent example was reported [Ref. 45] when three different consumer groups filed suit with the Department of Health and Human Services and asked the court to require the enforcement of a regulation which requires patient package inserts for prescription drugs. In recognition of this trend Kaufmann et al [Ref. 43] insists that with the emergence of consumers

as a political force, it is to the policy makers' and program administrators' advantage to monitor client satisfaction when developing new or assessing current policies.

The third category is that group of studies which has examined the concept of patient satisfaction, primarily in an effort to know more about it, its various dimensions, and its potential as an indicator of different aspects within a health care system. There is overall agreement among the studies in this category that patient satisfaction is a multidimensional concept. The dimensions are aspects of the health care experience which patients feel are important for satisfaction. It is also generally agreed in the literature that those characteristics which are distinguishable from each other should be measured separately in order to more accurately interpret patient satisfaction ratings. The area around which there is less agreement, however, concerns the identity and scope of the different dimensions. Table I provides a representative sample of the literature in this area and presents the general range of dimensions which have been identified. Upon analyzing the content of the different dimensions in these studies, it can be seen that many of the differences relate to variations in labeling and that there are a number of aspects common to many of the studies. The aspect, which was common to almost all of the studies reviewed, concerned the differentiation which exists in patient perceptions regarding the technical quality of care,

TABLE I

REPRESENTATIVE DIMENSIONS OF PATIENT PERCEPTIONS IDENTIFIED IN THE LITERATURE

WOLF (Ref. 19)	STRATTMAN (Ref. 25)	HULKA (Ref. 31)	KING (Ref. 32)	WARE (Ref. 34)
1. Cognitive (doctor patient communication)	1. Economic Factors 2. Temporal Factors (general efficiency of service)	1. Cost/Convenience 2. Personal Qualities 3. Professional Competence	1. Waiting Time 2. Choice of Doctor 3. Accessibility of Special Appt. 4. Professional Competence 5. Personal Attention 6. Confidentiality 7. Communication 8. Concern for Patient 9. General Satisfaction	1. Physician Conduct 2. Availability of Care 3. Continuity 4. Accessibility/Convenience 5. Financial 6. Facility
2. Affective (trust & confidence in doctor)	3. Convenience Factors			
3. Behavioral (evaluation of doctor behavior)	4. Sociopsychological Factor (atmosphere & relationship of doctor--patient)			
	5. Care Quality Factor			

the humaneness or personal attention and concern displayed by health care personnel, and the continuity of care. Other dimensions which were common to many of the studies reviewed concerned accessibility and convenience of health care, the environment in which the care was delivered, general satisfaction of the patient, and the economic cost of medical care and service. In many of the studies, there was also a relatively high degree of specificity noted within individual dimensions. In the dimension concerning technical quality of care, for example, patients were concerned with the doctor's familiarity with their medical history, the thoroughness of examinations, and the extent to which their condition was explained and their questions answered. In an example of a nontechnical dimension, patients viewed accessibility in several studies as being concerned with whether help was available over the telephone, time and effort required to obtain an appointment, operating hours of the facility, convenience of the location, waiting time in the facility, and whether medical records were conveniently located. In a review of the literature on patient satisfaction, Ware et al [Ref. 39] questioned the extent to which the published literature has reflected all of the important satisfaction dimensions. The area in which there was less in common among the studies reviewed, in all three of the categories of patient satisfaction studies, concerned methodological issues regarding the actual conduct of the research efforts. The following section will review the primary methodological issues in patient satisfaction studies.

3. Methodological Issues

Other sections of this chapter have pointed out the variety of reasons for which patient satisfaction data has been collected and similarities among those efforts. Of the studies reviewed, it was noted that very few utilized the same approach or methodology as those of studies conducted previously.

The methodological aspect which most of the studies had in common was the means by which the data was collected. The majority of studies collected data by means of a questionnaire, while only a few used interviews or a combination of questionnaire and interview. The results of those which used interviews reported patient evaluations to be considerably higher than other ratings of the same care. The results of those studies have been called into question by other researchers [Ref. 15] who advise caution about such ratings. The problem with this approach is that people being interviewed may tend to respond in a stereotyped socially acceptable manner and only infrequently express negative attitudes. Hulka et al [Ref. 31] noted that it is also difficult to assign quantitative scores which reflect the level of satisfaction for each respondent when using direct interviews. In view of these problems, questionnaires are considered the best method of obtaining patient perspectives about important aspects of the care received and how they felt about the experience.

Properly constructed multi-item measures or scales generally yield more score variability and higher validity and reliability than single-item measures. Despite the advantage of such scales, a large percentage of the reports on patient satisfaction indicate that single-item measures were used to test their hypotheses. A number of researchers have questioned this practice for basically three reasons: (1) use of such measurement limits the definition of patient satisfaction to the one dimension measured or to a general dimension that may be difficult to define; (2) reliance on one questionnaire item may not achieve satisfactory reliability; and (3) the validity of a single-item satisfaction measure may be jeopardized by acquiescent or opposition response sets (i.e., a tendency to either agree or disagree regardless of the content of the question) if the question allows only for a "yes-no" or "satisfied-dissatisfied" type response.

A variety of other techniques have also been used to construct those scales by which patient satisfaction has been measured. Hulka and her colleagues [Ref. 31] employed the Thurstone "Method of Equal Appearing Intervals", a technique which had been successfully used to measure attitudes toward such topics as race, religion, and politics. Her questionnaire was used to construct three scales according to the Thurstone method. It was based on 41 items and contained 149 statements to which the patients responded concerning the dimensions of cost/convenience, personal qualities, and

professional competence. Scale values and a measure of variance were used to define two sets of items in each of the three content areas. The reliability of the score for each content area was tested using the alternate forms method, and reliability coefficients were .63 for professional competence, .75 for personal qualities, and .43 for cost/convenience. In a later study, Zyzanski et al [Ref. 33] modified the content, format, and scoring of the Hulka questionnaire which he used in a study of 1200 patients receiving primary medical care. The questionnaire was reduced to 79 statements--21 in professional competence, 26 in personal qualities, and 32 in cost/convenience. He also adapted the Likert method of scoring to the questionnaire, which provided for five alternative responses from "strongly agree" to "strongly disagree". The Likert scale format and his use of a scale product method produced scores that were consistently more reliable than scores computed using the Thurstone method. Ware and Snyder [Ref. 34] used the factor analytic method in studies of the various measures of consumer perceptions regarding physicians and health services. Their questionnaire consisted of 80 items and also provided responses from strongly agree to strongly disagree. The dimensions which they identified are shown in Table I. Anderson and Aday used Guttman Scalogram Analysis in a study of attitudes toward doctors and efficacy of care [Ref. 39].

Satisfaction data has been used most often to evaluate health and medical care services. In terms of validity, then, the most important evidence needed is whether structure, process, or outcomes of care affect satisfaction. Unfortunately, few of the studies which were reviewed reported this information. Those that did, however, have reported findings consistent with the hypotheses that patient satisfaction scores are valid dependent variables. As a dependent variable with respect to patient satisfaction, there is also a need to know whether measures of specific dimensions differentiate between specific characteristics of providers and medical services. For example, can measures distinguish between satisfaction with financial aspects of care and with the humaneness of care? If such is to be used in planning programmatic interventions, evidence of this sort is necessary; however, very few studies have reported such findings. One method of indicating validity is to compare data from patient perspectives with the other approaches of assessment, i.e., structure, process, and outcome measures. A few actual comparisons of this type have been made; however, the findings reported have not established any particular pattern. One explanation for the difference between patient opinions and other measures that have been reported, is that physician raters may be more rigid on criteria of care than patients, who generally report high levels of satisfaction, and that physicians use different criteria [Ref. 15]. That patient

care is often higher, however, may indicate the need for both patient opinion and other evaluations in order to provide a complete view of the care provided.

E. SUMMARY

This review of the literature has reported studies of patient satisfaction and the use of that data within health care systems, for three primary purposes; those being, management information, policy analysis, and health services research. Within those three general categories, a number of specific reasons were also identified. From this review one might easily conclude that, with all of this attention focused on patient satisfaction by those in both professional and consumer sectors of the community, patient perceptions of health services are indeed very important and will continue to increase in value in the future. The consumer movement and recent events have demonstrated that patients are concerned about health services and desire that the health care system be more responsive to them. It would, therefore, behoove the managers and providers of health services to be well informed regarding the perceptions of their patient community. Surveying patients, or potential patients, is considered the best and most reliable means of obtaining such information. In most cases, the surveys reported in the literature were developed for the purposes of a specific study and would not apply very well to other settings or for

other purposes. A number of the surveys were also quite lengthy, some with as many as 32 pages, and would be costly and difficult to administer even if it did apply to a manager's area of concern. At this time, then, it is much more practical for officials within a health care system to develop their own patient satisfaction survey. Such a survey would need to focus only on those dimensions of satisfaction which are relevant to their specific concerns. To date, however, the literature has not reported a practical approach that may be used by people to ascertain which dimensions are relevant to the problem about which they are concerned and which would assist them in the development of a survey tailored to their specific needs. The following chapter will address that issue.

III. A STRATEGIC APPROACH FOR ASSESSING PATIENT SATISFACTION

The previous chapter presented a review of the current approaches to evaluating medical care and services and then examined the concept of patient satisfaction and the potential usefulness of that information to various elements in a health care system. Assessments of patient satisfaction have been accomplished by a number of different methods, including monitoring of patient letters of complaint or appreciation, personal interviews, telephone surveys, and questionnaires. It was previously noted that the preferred method of collecting patient satisfaction data is that involving questionnaires, but that the literature has not reported a practical approach for developing a problem oriented patient satisfaction questionnaire. In view of the absence of guidance of this nature, this chapter will present a method which provides a framework to assist in determining the content of a patient satisfaction questionnaire based on the primary purpose or objective of the assessment. The focus of this methodology will be on questionnaires because of the agreement in the literature that they generally offer more uniformity and reliability from one measurement situation to another [Ref. 46].¹

¹The methodology to actually construct the questionnaire is beyond the scope of this thesis. However, it should be noted that there is an abundance of literature available on the specifics of questionnaire construction (see Ref. 46).

However, the guidance being offered could also be adapted to other approaches of assessing patient satisfaction.

A good or successful questionnaire survey is considered to be one that measures levels of patient satisfaction employing criteria which are meaningful and important to patients as well as to the providers within a health care system. The methodology being presented in this chapter will concentrate on the following elements: (1) Criteria which are important to the patient, i.e., the dimensions of satisfaction; and (2) Criteria which are important to the provider, i.e., the basic reason and specific purpose for which the survey is being done.

In order to avoid any semantic difficulties with the terms being used, the different elements of the proposed method will be defined prior to its discussion. These elements will be presented under three headings which in essence represent a hierarchy of detail for the methodology to be presented; the basic differences between them being the level of specificity which each represents. The headings are the "reasons" and "purposes" for surveys and the "dimensions" of satisfaction. The reasons represent the more generalized, systems oriented motivations for conducting surveys, those which could apply to any given organizational concern. The purposes for surveys represent specific concerns relating to the manner in which patients perceive care at the various operating levels within a health care facility. The

dimensions of satisfaction are those elements which collectively comprise a patient's sense or concept of satisfaction with medical care and services.

A. BASIC REASONS FOR CONDUCTING PATIENT SATISFACTION SURVEYS

In chapter II the literature was divided into three primary categories considered to capture the basic reasons for which patient perceptions are surveyed: systems policy analysis, management information, and health services research. These do not necessarily reflect the content or specific purpose for which the questionnaires are employed, but instead relate to the end use of the information obtained by them. The specific purposes of patient questionnaires, presented in the following section, may be employed for any of the three basic reasons.

1. Systems Policy Analysis

Analysis of this nature involves a detailed examination of the principles and plans of a health care system and their effect on the operations of the different facilities within that system. In the course of this analysis patient satisfaction data may be used as an indicator of the congruence between the needs, desires and expectations of the patient community and the plans and policies of the system managers. An example of this type analysis was presented in the Harris and Whipple study [Ref. 41], in which they asked patients to compare different sources of care and identify

criteria which were important to them. The information from the survey was used, in part, to determine whether expenditures in the CHAMPUS program were likely to be reduced by expanding the services in military health care facilities.

2. Management Information

This concerns information which is necessary or helpful for the management of a health care facility to make well informed decisions regarding the operations of their facility. Such a decision is one that is made after all relevant factors have been considered. Information concerning patient perceptions, and the extent to which they are satisfied with the facility and care received there, is relevant to decisions regarding the organization, planning, and delivery of medical care and services in any given health care facility. Patient satisfaction questionnaires may be used as input for assessing the quality of care in a particular area, for evaluating the impact of personnel or structural changes in a clinic, and for a number of other purposes as well.

3. Health Services Research

Patient satisfaction is but one topic in the study of health services and the systems through which they are provided. Research into patient satisfaction is performed in order to gain additional knowledge and understanding of this concept and its effect on patients and health care facilities. In conducting studies of patient satisfaction its different dimensions are examined in order to determine their usefulness

as indicators of the relationship between patients and other elements within a health services system. Information obtained through such research can then be used to improve efforts at analyzing policy, making managerial decisions, or simply developing a better understanding of the relationships between patients and the health care system.

B. SPECIFIC PURPOSES OF PATIENT SATISFACTION SURVEYS

There are essentially two general purposes for conducting patient surveys: (1) Evaluation of the quality of care and services and (2) Assessment of the facilities and setting in which health care is delivered. The specific purposes of patient surveys more clearly reflect the area of concern and problem at hand as well as the possible content of the survey. The information obtained from them may be used as input to policy analysis, managerial decisions, or health services research activities. The remainder of this section will identify and explain a number of the specific purposes for which patient satisfaction may be measured.

1. Evaluation Of The Quality Of Services Rendered By An Individual Provider

A questionnaire of this type would measure the patient's satisfaction resulting from an encounter with an individual physician or other primary care provider. Information obtained from such surveys could be used by the individual provider in private practice or by a training facility evaluating skill development of students or clinical trainees.

2. Comparison Of The Quality Of Care From Different Types Of Providers

A survey of this type would measure the perceptions of patients receiving care from different types of health care providers in a particular setting. An example of this could involve the comparison of care provided by physicians and nurse practitioners or physicians assistants in a primary care clinic. Information of this nature would be useful to the management of a facility evaluating the impact of personnel changes in the clinic or to policy makers attempting to determine whether physician assistant or nurse practitioner training programs should be changed in some manner.

3. Evaluation Of The Quality Of Care In A Clinic

Information obtained from patients for this purpose would reflect their perceptions regarding the essential character of the care and services provided by health care professionals and support personnel in a particular clinic. An example of management use of this information might be the assessment of the impact or success of a programmatic change in a clinic from primary care to family practice. From the systems viewpoint, in the Navy Bureau of Medicine and Surgery for example, information of that same nature might be beneficial in determining whether family practice clinics should be required in all naval hospitals or if policy concerning family practice programs should be changed in some manner. For research purposes, that same information may add to the

body of knowledge concerning the dimensions of satisfaction or the health and illness behavior of various groups of people.

4. Evaluation Of The Quality Of Inpatient Care

Surveying inpatients will provide information about the different aspects of hospital care from the patients' perspective. This perspective is likely to be quite different from that of the staff. For management purposes, this information would be relevant to any general evaluation of the quality of hospital care and services. Such information is not important simply as an index of consumer satisfaction, but because effective medical care depends on patients' attitudes and cooperation.

5. Assessing The Quality Of Hospital Services

A survey of this type would not necessarily have as narrow a focus as other surveys may. Information obtained from it could reflect the consumers' general level of satisfaction with the various services provided by the hospital. This might include information regarding the physical facility, administrative services, pharmacy, laboratory, information assistance, or the gift shop/convenience store, as well as other areas. Such information would be a useful diagnostic tool for facility managers to identify potential hazards or problem areas and for improving the quality and efficiency of services. One example from the policy perspective on this data is that it might be useful in determining

whether various information or medical records could be handled differently or if access to such information should be more restrictive.

6. Comparison Of Different Sources Of Care

This type of survey would attempt to determine the variances between different sources of care as seen by the patients or consumers and identify those aspects from each source which are preferred by them. The management of a regional medical facility with outlying clinics might conduct this type of survey in order to determine what attracts patients from one area to utilize a clinic intended for consumers residing in a different area. This type of survey might also be done by the military medical departments to determine why patients would utilize a different health care system under CHAMPUS rather than the military's. Information from such a survey could be useful in developing new policies or plans for the military health services system.

C. DIMENSIONS OF PATIENT SATISFACTION

The dimensions of patient satisfaction are those aspects of the health care experience which patients feel are important to them. They are considered to be distinguishable from each other and therefore should be measured separately. The following classification of the dimensions of satisfaction was derived from the results of the various studies reported in the literature.

1. Availability

This dimension concerns the extent to which health services are present and ready for use by the potential patient. Measures of it will focus on whether there are adequate numbers of:

- a. Medical facilities, including hospitals with inpatient facilities, primary care facilities, specialty services, and emergency room services;
- b. Physicians, including general practitioners and specialists;
- c. Nonphysician providers, including physicians' assistants and nurse practitioners;
- d. Medical support personnel, including nurses, licensed practical nurses, and military hospital corpsmen or medics;
- e. Ancillary services, including pharmacy, laboratory, and radiology services;
- f. Administrative personnel, including managers/administrators, receptionists, and clerical personnel.

2. Accessibility

Included in this dimension are all those factors which are descriptive of the extent to which patients find medical care and services to be convenient, unrestricted, and accomodating. The following factors describe this dimension.

- a. The time and effort required to obtain an appointment.
- b. Whether help is available over the telephone.

- c. Waiting time where the care is received.
- d. Operating hours of the facility.
- e. Convenience of the facility's location.
- f. Whether medical records are readily available.
- g. The amount of time spent with the primary provider.
- h. The total time spent in the facility.

3. Technical Quality Of Care

This dimension focuses on the patient's perceptions of the character, merit, and adherence to high standards of technical performance by those who deliver the care. The patient's perception regarding this dimension of care may be influenced by the following factors:

- a. The provider's attention to details;
- b. Thoroughness of examinations;
- c. A provider's responsiveness to patient's questions;
- d. The clarity of explanations and instructions;
- e. Frequency of mistakes;
- f. Frequency of physician's visits (concerns inpatients);
- g. Appearance of health care personnel (e.g., clean/neat);
- h. Modernness of equipment.

4. Humaneness Of Care

This dimension involves the amount of consideration shown to the patients with regard to their human needs, dignity, and emotions. It is associated with what people have

referred to as "bedside manner". The factors which influence patients' perceptions about this dimension concern the extent to which health care personnel exhibit:

- a. Individualized attention;
- b. Consideration for extenuating circumstances;
- c. Friendliness and courtesy;
- d. Empathy/sincerity and concern;
- e. Respect;
- f. Privacy;
- g. Willingness to listen and answer questions;
- h. Convenient visiting arrangements (concerns inpatients).

5. Environment Of Care

Satisfaction with the environment of care concerns the social and physical conditions in which care is delivered. Those factors which relate to this dimension and influence the patients' satisfaction with it are:

- a. Pleasantness of the atmosphere;
- b. Comfort of seating;
- c. Attractiveness of waiting rooms;
- d. Cleanliness and neatness of the facility;
- e. Comfort of lighting;
- f. Clarity of signs and directions;
- g. Nature and extent of noise distractions;
- h. Nature of contact with other patients;
- i. Comfort of inpatient facilities;
- j. Quality/quantity of food (concerns inpatients).

6. Continuity Of Care

This dimension of satisfaction captures the extent to which ongoing medical care and services are provided without fundamental changes in the delivery of those services.

Those factors relating to this dimension consider:

- a. Regularity or continuation of treatment from the same provider;
- b. Continuation of treatment in the same facility;
- c. Continued availability and maintenance of medical records;
- d. Uninterrupted provision of same supplies and/or services.

7. Economic Cost Of Care

Arranging and paying for medical services is an important dimension of the consumer's health care experience. Those aspects of this dimension which influence the satisfaction of consumers and which relate to it include the:

- a. Dollar cost of care;
- b. Amount of insurance premiums and/or deductibles;
- c. Comprehensiveness of insurance coverage;
- d. Acceptance of insurance coverage by providers;
- e. Patients' understanding of insurance coverage and/or benefits;
- f. Ease or difficulty of claims filing procedure;
- g. Flexibility of payment mechanisms.

8. Efficacy/Outcomes Of Care

This dimension relates to the patients' perception of the health care provider's ability to obtain control of and influence the patient's condition and whether the desired effect is produced. The desired effect generally relates to the improvement or maintenance of health. The factors which influence a patient's satisfaction with this dimension are:

- a. A belief that the provider can help;
- b. A belief that the treatment process will relieve suffering and be helpful in resolving the condition;
- c. A belief that the provider will prevent some further disease;
- d. The extent to which the patient's desires and expectations were met (patient's satisfaction with the outcome of the care).

The preceding list of dimensions is considered comprehensive both in relation to the content of questionnaires described in the published literature and the experience of the author. As noted earlier, however, at least one study has questioned the extent to which the published literature reflects all the important dimensions of patient satisfaction [Ref. 30]. The lists of factors associated with each of the above dimensions are not considered to be comprehensive, but were provided to illustrate and further clarify the nature and scope of each of the dimensions.

D. SURVEY DEVELOPMENT: FRAMEWORK FOR A DECISION

The problem which this chapter has addressed concerns the lack of guidance from the published literature on the development of a problem-oriented patient satisfaction survey. In order to obtain a better understanding of the nature of this problem, the essential elements which are involved have been identified and discussed. Having reviewed these elements, it is posited that the development of a problem-oriented survey should basically involve a set of three decisions: (1) determination of the specific problem being considered; (2) deciding how the results of the survey will be used; and (3) identifying the type of information desired. The first question should have been answered prior to determining a need for the patient survey; however it should be reconsidered and clarified. The remaining decisions then will be concerned with the way in which the results will be utilized and the contents of the survey. Earlier in this chapter the utility of patient satisfaction data was discussed. It was noted that such information is useful in systems policy analysis as an indicator of the congruence between the needs, desires, and expectations of the patient community and the plans and policies of the systems managers. For managers of health care facilities it is useful as input to decisions regarding the organization, planning, and delivery of medical care and services as well as for assessing the quality of care in any particular area. Finally, it was

noted that patient satisfaction data is useful in health services research as an indicator of the relationship between patients and other elements within a health services system. By identifying the manner in which the information will be used, one may develop a clearer idea of the type of survey desired.

In view of the desire for the survey to employ criteria which are meaningful to both patients and providers, it seems logical that the content decision should focus on the factors which are important to those two groups. Previously these factors were identified as the specific purposes of patient surveys and the dimensions of patient satisfaction. Table II presents these two elements in the format of a decision matrix which links the specific purpose of the survey with those dimensions of patient satisfaction that are considered relevant to it. The content of the survey should then consist of inquiries regarding those dimensions. This methodology is based on the logic described earlier in this section, the experience of the author, and on a content analysis of approximately 40 studies of patient satisfaction and the dimensions represented in their surveys. A tabular presentation of the results of that analysis is presented in Appendix A.

When using the Survey Content Decision Matrix, one should first specify the purpose for which the survey is being done and then identify the row in the matrix which corresponds to

TABLE II

SURVEY CONTENT DECISION MATRIX

SPECIFIC PURPOSE FOR SURVEY	DIMENSIONS OF SATISFACTION							
	AV	AC	TQ	HC	EN	CT	EC	EF
Evaluate quality of care from an individual			*	*				*
Compare quality of care from different types of providers		*	*	*			*	*
Evaluate quality of care in a clinic		*	*	*	*	*		*
Evaluate the quality of inpatient care			*	*	*			*
Assess the quality of hospital services		*	*	*	*		*	
Comparison of different sources of care	*	*	*	*		*	*	

AV-Availability

AC-Accessibility

TQ-Technical quality of care

HC-Humaneness of care

EN-Environment of care

CT-Continuity of care

EC-Economic cost of care

EF-Efficacy/outcomes of care

that purpose. The rows are listed under the heading, "SPECIFIC PURPOSE FOR SURVEY." As one will note, the rows are divided into eight columns and asterisks appear in certain cells of the matrix. These columns are headed by an abbreviation (which is explained at the bottom of the table) and are listed under the general heading, "DIMENSIONS OF SATISFACTION." The asterisks indicate those dimensions of satisfaction which are relevant to the specific purpose of the survey. For example, when conducting a survey to evaluate the quality of care from an individual provider one would read across the row which specifies that purpose and observe the asterisks under the headings, "TC", "HC", and "EF". The asterisks indicate that when conducting the survey only questions regarding the technical quality of care, humaneness of care, and efficacy/outcomes of care should be asked. The environment of care, continuity of care, and the other dimensions of satisfaction do not have a direct relationship with the care provided by the individual physician or other provider being evaluated; therefore, questions regarding those dimensions should not be presented in the survey. The Survey Content Decision Matrix presented here does not provide a comprehensive listing of all the specific purposes for which a survey may be done. Those which will most commonly be done, however, are considered to be represented in the matrix.

E. STRATEGIC GUIDELINES FOR SURVEY IMPLEMENTATION

Having decided on the content of the survey, one will then be concerned with its actual construction and implementation. As previously indicated, this paper will not address the "nuts and bolts" of questionnaire construction; however, a set of strategic guidelines will be offered which may improve the potential for successful implementation of the surveyed effort. These guidelines are an adaptation of those presented in the Harris model for improving patient satisfaction through action research [Ref. 47].

1. Clarify The Goals And Motives For The Survey

The key factors involved in this concern include identifying that part of the health care system on which the survey will focus, defining how the information obtained from it will be used, and who will be responsible for using it. The goal for the survey is linked directly with the basic reason and specific purpose for which it is being done. For instance, one's goal might be to improve the quality assurance program by providing the additional perspective of patient assessments of care. Another goal might be to develop a problem identification system which would determine the extent to which specific problems are existent, e.g., restrictive appointment accessibility, cleanliness of patient restrooms, courtesy of receptionists, etc. Having considered these factors, one's motive should be to provide the individual responsible for necessary action directly with the

information from the survey. For example, if one is attempting to improve the quality assurance program, one's motive should be to provide the survey information directly to the chairperson, of the quality assurance program.

2. Involve Staff Personnel With Planning And Development Of The Survey

Every attempt should be made to involve those staff personnel who are directly affected by or responsible for the end use of the information from the survey. If the goal of the survey is for them to use the data, then their commitment will be needed. They will more likely take ownership of the data and be more committed to the effort if they are directly involved in the planning and development of the survey effort.

3. Carefully Construct The Questionnaire

The questionnaire itself should be carefully thought-out, neat, and well organized. It should project and reinforce the message to patients that the information they are providing is important and part of a sincere effort. The following criteria should be applied when selecting questions.

a. Select questions regarding only those dimensions of satisfaction which are relevant to the problem as perceived by the patient community. Patients will be much more convinced of the sincerity of the survey effort if it addresses those aspects of medical care and services about which they are concerned.

b. Select only those questions for which the users really want to know the patients' answers. The most effective

type of questionnaire is one which is relatively short and does not require too much time for the patient to fill out; therefore, questions generated by curiosity or of a "by-the-way" nature should not be included.

c. Select those questions for which, if patients' responses indicate a need for improvement, the user is willing and has the capability to respond.

The task of constructing the questionnaire should be assigned to an individual with the necessary expertise. To assist in this effort and to further illustrate the scope of the dimensions of satisfaction, a sample of questions from several patient satisfaction surveys is provided in Appendix B under the headings of the dimensions which they address.

4. Carefully Plan And Coordinate Survey Procedures

To minimize bias in the survey, randomize those patients selected to participate in it. Those of the staff involved in handing out and collecting the questionnaires should fully understand who should be asked to participate, as well as how many are to be asked. They should also be willing, as well as able, to provide complete, simple instructions as to how the questionnaire is to be completed and be able to answer patients' questions about what is being done.

5. Provide Prompt Feedback To Those Involved

Staff personnel involved in the survey efforts should be provided timely reviews of the data collected. They should also be advised of the ways that the data can be viewed and

interpreted. If the questionnaire or survey is administered on a continuing basis, some manner of reporting the results to patients should also be established. When people are requested to express their opinions in surveys of this nature, they will have a strong need to know how others responded; therefore, some means should be established to inform patients of their collective perceptions.

The strategic guidelines presented in this section are not a comprehensive list of instructions, but do represent many of the important considerations which may be regarded as basic to the effective implementation of a survey effort. The use of these guidelines in the design and implementation phase of the survey effort will involve a process of group participation and collaboration from individuals occupying different roles and jobs within the organization. Group participation in this phase will not only facilitate the resolution of any differences which may exist about various aspects of the survey itself, but will also provide the opportunity for them to rally around the issue of patient orientation and satisfaction. The result of these actions can lead to more frequent coordination of efforts and a greater motivation and commitment to patients and the organization by the individual staff members.

F. SUMMARY

This chapter identified and discussed a number of specific reasons for which patient satisfaction data is collected and

the basic uses of that information. Patient satisfaction was defined as those aspects of the health care experience which patients feel are important to them. The different dimensions of satisfaction were also defined and the factors influencing them were presented.

The issue regarding the lack of guidance from the literature on patient survey development was again noted and a methodology which addressed this problem was presented. It was posited that the development of a patient satisfaction survey is basically concerned with three decisions that involve identifying the problem, the information desired, and how it will be used. These were discussed and a decision matrix was offered for determining which dimensions of satisfaction are relevant to the problem at hand and should therefore constitute the content of the survey. A set of strategic guidelines for improving the success of the survey effort was also presented.

A successful survey was identified as one which would ascertain levels of satisfaction employing criteria which are meaningful and important to patients as well as providers of health care. The early discussion in Chapter II stated that in defining quality, one implicitly advocates the criteria to be used in evaluating it. Therefore, the methodology proposed in this chapter can be evaluated by determining how acceptable its results are to patients and providers. At this time, the proposed method has not been tested in a survey

situation. The following chapter will, however, address the feeling of physicians about the use of patient satisfaction data and the implications of their opinions toward utilization of this approach.

IV. PHYSICIANS' PERSPECTIVE ON PATIENT ASSESSMENTS OF CARE

Earlier sections of this study discussed the current approaches to assessing medical care and services and presented patient assessments of care as an important but long neglected perspective in quality assurance activities. Other equally important uses of patient perspectives on health services were also presented and discussed. The previous chapter offered a problem-oriented methodological approach for obtaining patient assessments of medical care and services. It was noted that the successful survey would be one which employed criteria that are meaningful to patients as well as to providers of medical care. Previous sections of this study presented the findings of various reports in the published literature on the manner in which patients assess medical care and then discussed the different dimensions of patient satisfaction with medical care and services. The purpose of this chapter will be to examine and discuss the opinions of physicians toward the concept of patient assessments of medical care and services, and the implications of those opinions toward the potential acceptance and use of the methodology presented in the previous chapter.

A. RATIONALE AND METHODOLOGY

It is recognized that physicians are not the only providers of medical care and that the other providers, i.e.,

physician's assistants and nurse practitioners, will also have definite opinions regarding patient assessments of medical care and services. While a comprehensive evaluation of the extent to which all providers might find the proposed methodology acceptable would indeed examine their opinions as well as those of physicians, this study has been conducted under time and resource constraints. However, it was necessary at a minimum to obtain the opinions of those whose agreement is essential to any change in the manner by which medical care and services are evaluated. Inasmuch as physicians maintain primary control over medical care and are the key decision makers in matters relating to its evaluation, only a sample of physician opinions was collected.

The information presented in this chapter was obtained by the author through interviews at five medium-sized naval regional medical centers. The interviews were conducted between March and May 1981, and the physicians interviewed were either Directors of Clinical Services or Chiefs of one of the following Services: Pediatrics, Obstetrics-Gynecology, or Primary/Ambulatory Care. Fifteen physicians were included in the sample reported here. While it is recognized that this may not constitute a sample of statistical significance, it is presumed to provide a fair representation of the general attitudes of physicians toward this subject. The interviews usually averaged 25 to 30 minutes. An outline of the interview format is presented in Appendix C. The questions

in the interview were related to three general issues: (1) Patient satisfaction and its relationship to quality of care; (2) Physician perceptions of the way patients assess care; and (3) Physicians' use of, and responsiveness to, patient surveys. The general responses to the interview questions will be discussed in relation to the proposed methodology under these headings.

B. PATIENT SATISFACTION AND ITS RELATIONSHIP TO QUALITY OF CARE

The interview questions relating to this issue were intended to ascertain those factors which physicians consider important to quality in medical care and whether patient satisfaction is one of them. The rationale for attempting this determination relates to the suggestion earlier in this study that the criteria included in a definition of quality would also influence the methods used to evaluate it. Therefore, the physicians' responses to questions concerning this issue should provide some indication of their potential acceptance and use of patient satisfaction surveys as suggested by the methodology of the previous chapter. The assumption here is that if they considered patient satisfaction to be an important factor in the quality of care, they would tend to accept and possibly advocate the use of patient satisfaction surveys as part of an evaluation of care.

Five of the questions in the interview were concerned with the issue of quality. The first of these questions

asked how the respondent would define "good quality medical care". The most frequent immediate response was that it was a tough question or was difficult to answer. A number of the respondents began the definition by identifying the methods used to evaluate care rather than those elements which are important to its essential character. All of the respondents did mention, in various ways, that well trained, qualified personnel and the provision of care which is in keeping with current standards of good medical practice are important to quality. Eighty percent of the physicians added descriptions of various aspects relating to patient satisfaction/acceptance as part of their definition of quality care. Those responses included such comments as, "treating the whole patient", "showing concern and interest in the patient", "considering the patient's family, job situation, etc.", and that "the patient should be satisfied with the care". However, when asked specifically if patient satisfaction is important with respect to quality of care, almost half of them answered that it was not, or indicated that it was a goal, but that patients may or may not be satisfied with even the best of care. The opinions of those who feel it is important may be represented and summarized by the comments of one physician who answered, "Patient satisfaction is extremely important, especially in one major aspect, and that deals with patient compliance. If the patient is not happy with the care received or feels that things aren't

quite right, they won't trust the physician and are not going to take even the most appropriate medication." The last question regarding this issue asked the physicians whether patient satisfaction is a consideration in the current assessments of care being conducted in their facilities. The majority replied that it is not, the general rationale, as indicated in their answers, being that current peer review and other quality assurance activities evaluate the technical aspects of care and that patients are considered to be either unconcerned with this dimension of care or generally uninformed and incapable of evaluating any of the technical aspects of care. Two physicians, however, from different hospitals, indicated that they were in the process of developing patient surveys; one for the use of the Pediatric, OB-GYN Audit Subcommittee and the other for the use of the Ambulatory Care Service. Another reported the use of patient surveys by several clinics within the hospital. An examination of the questions included in these three surveys revealed that patients will be asked about the technical aspects of care.

Having reviewed the physicians' opinions regarding the relationship between patient satisfaction and quality of care, it is again noted that most of them included dimensions of patient satisfaction in their definitions of quality. However, a number of these same physicians, when questioned more specifically, did not consider patient satisfaction

important with respect to quality of care. This apparent contradiction seems to indicate that many physicians do not have a systematic way of viewing the quality of care beyond the technical aspects, as presented in Chapter III. Those who did consider patient satisfaction an important part of quality, had linked it with the patient's trust and confidence in the provider, the patient's participation in the care, and with the final outcome of the care. The fact that some of these were beginning to use patient surveys in their quality assurance activities may suggest a growing realization, within the physician community, of the importance of patients' perspectives of care. It may also indicate that many of them would support a methodology, such as the strategic approach presented in Chapter III, which provides them with a systematic manner of approaching this subject and yet has the flexibility to be adaptable to the specific concerns of themselves and their patient communities.

C. PHYSICIANS' PERSPECTIVES ON THE WAY PATIENTS ASSESS CARE

The extent to which physicians accept patient assessments of care is largely dependent on their perceptions of the manner in which patients assess care and how those assessments compare with their own evaluations of care. Four of the questions in the interview were designed to examine this issue and to compare physicians' perceptions of the manner in which patients assess care with the classification of the

dimensions of patient satisfaction, presented in Chapter III, as part of the Survey Content Decision Matrix. The extent to which their perceptions agree with the dimensions included in the matrix should also indicate the validity which they would ascribe to it and whether they might find the matrix a useful tool.

In order to compare patient assessments of care with those of the physicians, the respondents were first asked how they would rate current peer review assessments on a scale ranging from very objective to very subjective. Half of the physicians felt that the current assessments are based on established criteria and tend to weigh more heavily on the objective side of the scale. The other half of the physicians felt that peer review assessments tend to fluctuate and in many respects are equally as subjective as they are objective. Several of these physicians believed that many subjective opinions based on the reviewer's background, personal feelings, and experience go into the development of the "objective criteria" against which the care is evaluated. The next question presented to the physicians asked where patient assessments of care would measure on that same scale. There was general agreement among all of the physicians that patients' assessments would be much more subjective. One physician noted that patients' objectivity or subjectivity could be at extreme ends of the scale depending upon the type of specialist they were seeing, but in any case

they would still look at the care in a way totally different from physicians. For example, a patient being seen by an orthopedic specialist could easily be more objective about the care than could one being seen by an obstetrician-gynecologist. A few of the respondents, however, felt that patients should not have to be objective in the way they view medical care. The physicians were then asked how the two types of assessments (physicians' and patients') would compare in the long run; that is, would they approximate each other? Fifty-three percent of the physicians considered that there would be occasions when the two types of assessments would vary widely, but generally speaking felt that they would come very close to approximating each other. Those whose answers differed from this either had no idea or believed that the two types of assessments were looking for different things and could not be compared; one of them remarked that it might be like comparing apples and oranges. The differences in their assessments were primarily around the technical dimension of care.

The next question, concerning the issue of how physicians perceive patient assessments of care, asked them directly, "In what ways do patients assess medical care and services?" As one might expect, all of the respondents had very definite opinions regarding this matter. The answers provided by each of the physicians were compared with the dimension of satisfaction and the factors relating to them as presented

in Chapter III. They were then coded, to reflect the applicable dimension, for the purpose of comparison with the Survey Content Decision Matrix. For example, when a respondent replied that one of the ways in which patients assess care was whether the doctor adequately answered their questions, that answer was coded to reflect technical quality of care. Another common answer, the time required to wait to be seen by the doctor, was coded to reflect the dimension accessibility of care. The physicians' coded responses to this question are presented in Table III with the respondents grouped by specialty. The results revealed no answers concerning the dimension of availability and only two which indicate the dimensions of continuity and economic cost of care. The physicians' answers reveal that they perceive patients' assessments of care as being primarily concerned with accessibility, technical quality of care, humaneness of care, efficacy/outcomes of care, and, to a lesser extent, the environment of care. One may note that all of the pediatricians included the dimension efficacy/outcomes of care and only one of them included accessibility in answering this question. Additionally, all but one of the obstetrician-gynecologists included the dimension environment of care, as well as the other dimensions which most respondents included.

Having reviewed the physicians' answers regarding the issue of patients' assessments of care, one may again note that they do not consider patients to be very objective in

TABLE III

PHYSICIANS' PERCEPTIONS OF THE WAY PATIENTS ASSESS CARE¹

RESPONDENTS BY SPECIALTY	DIMENSIONS OF SATISFACTION							
	AV	AC	TQ	HC	EN	CT	EC	EF
Pediatrician			*	*		*		*
Pediatrician		*	*	*		*		*
Pediatrician				*				*
Pediatrician				*	*			*
Primary Care		*	*	*			*	*
Primary Care		*	*	*				
Primary Care		*		*				
Primary Care		*	*	*				
OB-GYN		*	*	*	*		*	
OB-GYN		*		*	*			
OB-GYN		*		*				
OB-GYN		*	*	*	*			*
OB-GYN			*	*				*
OB-GYN ² (DCS)		*	*		*			
Internal Med. (DCS)		*	*	*				

¹The physicians' answers were coded to reflect the dimensions presented in Chapter III.

²The last two respondents were Directors of Clinical Services, all others were Chiefs of Service.

this matter. It should also be noted that there was no general agreement among the physicians themselves of the extent to which they are objective in evaluating care except that their assessments are more objective than are patients' and are more reflective of the technical quality of care as they view it. One might conclude then that the two types of assessments are not comparable and the patient assessments may not be acceptable to many physicians. Over half of the physicians, however, felt that patients' assessments of quality would generally approximate their own. One explanation for this might be that although they feel patients look at care differently, the physicians consider that the care they provide is high in quality (technical aspects of care) and that patients will usually recognize it and reflect that quality in their own assessments. This explanation does not provide a very strong indication that physicians will support the use of patient surveys for evaluating care, but it may indicate that they will not actively oppose patient assessments of care because of the similar finding which they feel are likely to be produced and because patient assessments will also focus on aspects of care which they do not consider in peer review evaluations. The physicians' perceptions of the ways in which patients assess care does, however, appear to reflect a general trend among them. Specifically, when discussing the technical quality of care physicians generally are referring only to the specific

aspects of diagnosis and prescribing treatment and do not consciously consider the manner in which questions are answered or instructions given as relating to technical quality. These types of answers to the interview, however, were coded to reflect technical quality, as indicated in Chapter III, for purposes of comparison with the matrix. A brief review of the responses presented in Table III appears to indicate a pattern of similar responses by physicians within the same specialty. Upon further review of these answers they were considered to reflect the primary areas of concern, as voiced by patients seen by those specialists. For example, the fact that only one pediatrician included the dimension accessibility in his answer would seem to indicate that pediatric clinics have more convenient appointment systems, operating hours, etc., or that there are greater numbers of pediatricians available to provide care than there are in other specialties. Patients or parents in pediatric clinics then do not have to wait as long to be seen. The latter case seems to be the reason, inasmuch as the Navy presently has as many pediatricians as are allowed. This is not the situation with the other specialty groups interviewed. In the interviews, the majority of physicians felt that, in assessing care, most patients consider the dimensions of accessibility, humaneness of care, technical quality of care, efficacy/outcomes of care, and environment of care. These dimensions include five of the six identified in the Survey Content Decision Matrix as

being relevant to the evaluation of care in a clinic, which is the primary concern of most of the physicians interviewed. It does appear plausible, therefore, that they would find the methodology acceptable for evaluating those dimensions of care not related directly to the specific technical aspects of diagnosis and treatment and that the matrix would be very useful in this regard as a systematic way of approaching patient assessment surveys.

D. PHYSICIANS' USE OF AND RESPONSIVENESS TO PATIENT SURVEYS

As the central figures in the medical care team, physicians will essentially determine the value of patient surveys by the usefulness which they feel that information will be to them. If they perceive it as serving a purpose that would help to enhance the quality of care, they will very likely support its use; otherwise, they may disregard or even oppose efforts to conduct surveys for patient assessments of care. Information obtained from three of the questions in the interviews were considered to be indicative of the extent to which the physicians would consider such surveys a worthwhile effort.

In a preceding section of this chapter, the question of whether physicians considered patient satisfaction important to quality of care was discussed. Approximately fifty-eight percent of the physicians interviewed agreed that it is important to quality, particularly as it relates to patient compliance with the doctors' instructions. When asked

specifically whether there was a relationship between the patient's satisfaction and the outcome of the care, forty-six percent of them answered that there was. Fifty-three percent of the physicians also thought there was a direct relationship between the patient's satisfaction and the extent and manner in which they would utilize medical services. For example, several of them commented that those military medical department beneficiaries who were dissatisfied, and could afford it, would go to civilian sources of care utilizing their CHAMPUS benefits or, if they could not afford that, patients would tend to use the emergency room service rather than go back to the appropriate clinic. It was also noted that patients who are not satisfied with a private practitioner, or other source of private care, would change to one with whom they were satisfied.

The physicians were then asked specifically in what ways patient satisfaction survey information would be useful to them. Every one of the respondents replied that it would be useful information for identifying recurrent undesirable patterns or problems that patients were experiencing with the care being provided or in dealing with the medical care system itself. One Director of Clinical Services commented, "That information is a good source of constructive criticism which I would discuss with the Chiefs of Service and have them use it as a take off point to try and improve the quality of care provided in our hospital." Forty-six percent

of the respondents also considered information of this nature as being very helpful in reviewing existing policies relating to appointment scheduling and other factors affecting access to the clinic, records procedures, and operating hours of the clinic. Then asked how willing they would be to respond to patient survey information and implement changes based on that data, ninety-three percent of them replied that they would be willing to respond to it and make appropriate changes, to the extent allowed them by their authority and resources.

The physicians' answers to this part of the interview indicates that patient satisfaction surveys would provide information which they consider important. The fact that some of them have begun to develop their own surveys for use in their clinics is solid evidence of this, as is their willingness to implement changes in response to them. One might consider then, that the availability of a systematic approach for developing a survey tailored to their specific concerns, as presented in this study, would encourage and assist other Chiefs of Service and Directors of Clinical Services in developing patient surveys for their facilities.

E. SUMMARY

This chapter has presented and discussed the opinions of a sample of physicians who were presumed to be representative of the attitudes of physicians in general regarding

the concept of patient satisfaction and the use of that information for various reasons within medical care facilities. The opinions of these physicians were obtained by personal interviews concerned with the relationship between patient satisfaction and the quality of care, physicians' perceptions of how patients assess care, and physicians' use of and willingness to respond to that information. The purpose of the interviews was to examine their opinions and the implications which they may provide toward acceptance and use of the strategic approach to assessing patient satisfaction as presented in the preceding chapter.

It was noted that many physicians do not seem to have a systematic way of viewing quality beyond that involving the technical aspects of care. Additionally, it appears that their perspective of technical quality of care is narrower than that presented in Chapter III and focuses specifically on the diagnosis and prescription of treatment aspects of quality, perhaps subconsciously excluding such factors as the manner in which questions are answered or directions given. It was also noted the physicians did not generally consider their own and their patients' assessments of care as being very comparable, although many of them were of the opinion that the two assessments would usually produce similar results. There was some indication that the physicians would not oppose patient assessments of care partially because of the similar findings, but also because they

consider dimensions of care which the physicians do not. Support for the relevance of the dimensions which patients consider was indicated by the fact that some physicians were currently in the process of developing patient surveys for their facilities.

When asked about the manner in which patients assess care, the physicians' opinions corresponded closely with the decision matrix presented in the preceding chapter, as did the manner in which they would use that information. These answers could then be considered as validating the matrix content, particularly with respect to evaluating the quality of care within a clinic. Almost without exception the physicians also expressed their willingness to respond to patient surveys to the extent allowed them by resources and capabilities. This and the manner in which their preceding answers related to the proposed methodology indicated a relatively high potential for their acceptance of this systematic approach to assessment of patient satisfaction.

V. CONCLUSION

This study was motivated by a concern for issues being raised regarding the quality of care in naval medical facilities and the manner in which that care is evaluated. Because many of the issues are being raised by patients, the intent of this study was to examine the topic of the patient's satisfaction with medical care and services and the potential use of that information to various elements within a health care system.

The preceding chapters of this study supported the desirability of the dual perspective of both providers and patients in the assessment of the quality of medical care and services, examined the perspectives of both groups, and presented a problem oriented methodology for obtaining patient assessments of care adaptable to the various levels within a health care system. This chapter will present a brief summary of the important finding previously noted and the conclusions which may be drawn from them. Finally, a brief discussion of possible extensions of this study and implications for future research in this area will be presented.

A. FINDINGS AND CONCLUSIONS

A review of the most common currently employed approaches to the assessment of care was presented and was followed by

a review of the major works in the literature regarding patient assessments of care. It was noted that the current methods being used to evaluate care are very narrow in the sense that they limit the boundaries around the concept of quality. This observation would appear to be validated by the subsequent physicians' interview responses. In those it was noted that, when discussing quality, physicians generally are referring only to the specific aspects of diagnosis and prescription of treatment. Patients, however, were found to view quality in a much broader sense, while including, and placing their highest priority on, the same aspect of care as did physicians: the technical quality of care. The dimensions through which patients were found to view care encompassed aspects of the entire health care experience and the system through which the care was delivered. It was of particular interest to note that there is little difference in the way most people view health care; that patients place more importance on provider conduct (technical and humaneness dimensions) than other dimensions of care; that patients who were satisfied with their last visit to a doctor were significantly more likely to follow the doctor's advice than those who were dissatisfied; that patients' level of satisfaction significantly increases the predictability of their utilization of those services; and that the dimensions of satisfaction are distinguishable from each other and may be measured separately.

It was posited that the Navy Medical Department's Quality Assurance/Risk Management Program would develop an increased capability to attain its goals of assessing quality, identifying problem areas, and monitoring and documenting any changes implemented, by employing the dual perspective of both providers and patients. This view was supported by the published literature which reported previous utilization of patient satisfaction information, generally done for three basic reasons: health services research; systems policy analysis; and management information. However the literature did not provide a problem-oriented approach for measuring patient satisfaction which could be adapted from one setting to another for different reasons. Therefore a methodology was developed which provides a strategic approach to the assessment of patient satisfaction.

The methodology was designed primarily to develop surveys of patient assessments of care for specific reasons and at various levels within a health care system. It was intended to employ criteria which are meaningful to both the patients and providers of care. It was then tested for potential physician acceptance since the patient criteria used in its development was considered valid and because physicians' acceptance would be necessary before it could be used effectively. The test revealed that many physicians do not have a systematic way of viewing quality of care beyond the technical aspects of diagnosis and prescription of treatment.

There appeared to be indications, however, of a growing realization by many physicians of the importance of patient satisfaction. The core of the methodology was presented in the format of a decision matrix which considered the dimensions of satisfaction and the specific purpose of the survey. The information obtained in the test, which consisted of physician interviews, appears to validate the content of that matrix and indicate a relatively high potential for physicians' acceptance of the strategic approach to assessment of patient satisfaction which was developed in this study. Assuming then that physicians would accept the methodology presented here, it is further posited that the Navy's Quality Assurance/Risk Management Program would indeed be enhanced by its application.

B. APPLICATIONS

The strategic approach to the assessment of patient satisfaction presented in this study is not limited to use at the facility level, but may be employed at all levels within a health care system for policy analysis, management information, and research activities. In the process of analyzing a system policy for example, the Navy Bureau of Medicine and Surgery could use this methodology when attempting to determine whether the expansion of services in their medical facilities might reduce CHAMPUS expenditures. Information relevant to this problem could be obtained by having patients

compare the Navy's medical care system with the care available in the civilian community. The dimensions which are of most relevance to such a survey would be availability, accessibility, technical quality of care, humaneness of care, continuity of care, and the environment of care. A review and analysis of the outpatient survey which is provided by the Bureau of Medicine and Surgery's proposed Quality Assurance/Risk Management Manual reveals that it has questions which address all of those dimensions plus the environment of care, but does not address the availability or the economic cost of care. In making such a decision, one should ascertain whether patients are satisfied with or aware of other available sources of care and how they would perceive any changes in the cost of medical care to them. The matter of the patients' satisfaction with all the other dimensions would be of little relevance if one was not sure of the extent to which it was available to patients or if they could pay for it through CHAMPUS. The outpatient survey would, however, provide relevant information concerning the progress of the Bureau's Patient Contact Point Program and could be used as input to decisions regarding the policies and plans for it.

Generally, one will find that a single survey would not be relevant to, or provide acceptable data for analysis of, decisions regarding many different issues, and that a separate survey should be tailored to each problem or group of problems as they arise and are dealt with. For example, at

the facility level, one might want to assess the success of a programmatic change from a separate appointment system in each clinic to a centralized appointment system. A survey designed for this would need to address only the accessibility of care to patients. Questions regarding other dimensions would not be relevant to the program evaluation and might confuse patients about the survey's purpose. If a clinic were to use a survey as part of a quality assurance program, it should include questions which address accessibility, technical quality, humaneness of care, environment of care, continuity of care, and the efficacy/outcomes of care. At this level, one should attempt to involve staff personnel in developing short questionnaires which are easy for the patient to complete and which address only those problems for which the staff is concerned. Surveys for research activities should also be designed and tailored to specific purpose for which the survey is being done, but the length of the questionnaires need not be as restricted as is necessary for the other reasons.

C. DIRECTIONS FOR FUTURE RESEARCH

The methodology presented in this study was indirectly tested by obtaining the opinions of physicians toward patient assessments of care. Inasmuch as health care is provided by a team effort, the success of which is dependent upon all of its members, a comprehensive test of the methodology's

validity and acceptance would examine the perceptions of the other members of the health care team as well as those of physicians.

An appropriate follow up to this study would be to conduct an actual application of the strategic approach to the assessment of patient satisfaction. The most immediate application would be to address the concern of the Bureau of Medicine and Surgery about whether patients perceive a reduction in the quality of care received as a result of the increased utilization of nonphysician providers of care in ambulatory, primary care clinics. A study of this nature would address both the systems concerns of the Bureau as well as the management concerns of the medical centers involved in the study. As such the survey design and development would involve the participation and collaboration of Bureau staff personnel, Directors of Clinical Services, Chiefs of Service, and the providers and support personnel in the various clinics. Because of the many people involved, the Directors of Clinical Services would very likely be the survey coordinator at each facility, acting as a liason for the staff of the Bureau and the various clinics in their facilities. The system concerns of the Bureau might center on the manner in which patients compare the care provided in naval facilities by increasing number of nonphysician providers, with that available to them from other health care systems. The management concerns of the medical centers might focus on

the extent to which nonphysician providers have made care more easily accessible to patients in their facility or on assessing the quality of care, as perceived by patients, in various clinics. These specific concerns could vary from one medical center to another, so the only constant aspect of the surveys would be the portion addressing the system concerns of the Bureau. The questionnaires, then, would undergo final construction at each facility. When the survey was to be conducted, the selection of patients as part of the sample could be done randomly by the receptionists in each clinic using a random number table and the numbered patient check in log for each clinic. As noted previously, the results of that survey would yield information for policy analysis at the Bureau level of the system as well as information useful for the facility managements' various concerns, and the data necessary to determine the validity of the methodology presented in this study.

APPENDIX A

DIMENSIONS OF SATISFACTION ADDRESSED BY PREVIOUS STUDIES AND SURVEYS

PURPOSE OF SURVEY	DIMENSIONS OF SATISFACTION							
	AV	AC	TQ	HC	EN	CT	EC	EF
Compare military and civilian facilities [Ref. 3]	*	*	*	*	*	*	*	*
Compare different doctors and patient utilization patterns [Ref. 5]								*
BUMED inpatient assessments of care [Ref. 10]		*	*	*	*		*	
BUMED outpatient assessments of care [Ref. 10]		*	*	*	*	*		
Patient satisfaction in a chronic care clinic [Ref. 16]		*	*	*	*		*	*
Patient perceptions of physician conduct and medical services [Ref. 18]	*	*	*	*		*		
Patient evaluation of an encounter with a specific provider [Ref. 19]			*	*				*
Patient assessments of inpatient care [Ref. 20]			*	*	*		*	
Patient satisfaction with inpatient care [Ref. 21]			*	*	*			*
Patient evaluation of outpatient clinic [Ref. 22]	*	*	*	*			*	*
Patient evaluation of outpatient pediatric practice [Ref. 23]		*	*	*				*

PURPOSE OF SURVEY	DIMENSIONS OF SATISFACTION							
	AV	AC	TQ	HC	EN	CT	EC	EF
Patient satisfaction with medical care in outpatient clinic [Ref. 24]		*	*	*				*
Study of factors which influence medical care utilization [Ref. 25]		*	*	*	*		*	
Patient comparisons of different facilities [Ref. 25]	*	*	*					*
Patient assessments of outpatient medical care [Ref. 26]		*	*	*	*	*		
Patient evaluation of an Army Family Practice clinic [Ref. 26]		*	*	*				
Patient assessments of a Navy Family Practice clinic [Ref. 27]		*	*	*		*		
Patient perceptions and utilization of medical care [Ref. 28]		*	*	*				
Examination of the utilization and value of patient assessments of care [Ref. 31]		*	*	*			*	
Development of patient satisfaction surveys using Thurstone scaling [Ref. 31]		*	*	*			*	
Patient evaluation of student health services [Ref. 32]		*	*	*				*
Assess patient attitude toward doctors and medical care [Ref. 33]		*	*	*			*	

PURPOSE OF SURVEY	DIMENSIONS OF SATISFACTION							
	AV	AC	TQ	HC	EN	CT	EC	EF
Evaluate the manner in which patients assess medical care [Ref. 34]	*	*	*	*	*	*	*	*
Determine patient attitudes toward physicians and the care they provide [Ref. 35]	*	*	*	*		*	*	
Examination of measures of patient satisfaction [Ref. 36]			*	*			*	*
Patient comparisons of care from different sources [Ref. 37]			*	*				*
Patient comparison of care from different types of providers [Ref. 37]		*	*	*				
Patient evaluation of inpatient care [Ref. 38]			*	*	*			
Patient assessments of clinical care [Ref. 40]		*	*	*				
Patient evaluation of care in naval facilities as compared to civilian sources of care [Ref. 42]		*	*	*		*		
Obtain patient feedback on health service policy matters [Ref. 43]		*	*	*		*		
Patient assessments of care from PA's [Ref. 48]		*	*	*				*
Patient comparisons of physicians and PA's [Ref. 49]			*	*			*	
Patient evaluations of primary medical care [Ref. 50]				*		*		*

PURPOSE OF SURVEY	DIMENSIONS OF SATISFACTION							
	AV	AC	TQ	HC	EN	CT	EC	EF
Patient perceptions of care from group practices [Ref. 51]	*	*	*	*			*	*
Patient perceptions of PA's in USAF primary medical clinics [Ref. 52]	*	*	*	*				
Patient evaluations of nursing care [Ref. 53]			*	*				

APPENDIX B

SAMPLE QUESTIONS/STATEMENTS RELATING TO THE VARIOUS DIMENSIONS OF SATISFACTION

The following sample of questions/statements were taken from surveys previously developed and are provided to further clarify and illustrate the scope of the dimensions of satisfaction. The response sets in the surveys ranged from "satisfied-dissatisfied" to multiple choice answers to variations of the Likert scale. The questions/statements are presented under the headings of the dimensions with which they are concerned.

A. AVAILABILITY

1. There are enough medical facilities in this area.
2. There are enough family doctors around here.
3. We need more doctors who specialize.
4. There is a big shortage of general practitioners.

B. ACCESSIBILITY

1. Regular appointments can be made with little delay.
2. The patient is kept waiting too long beyond the scheduled appointment time.
3. Is parking a problem when you have to see the doctor?
4. The walk-in clinic at this facility is usually so crowded that a long wait is inevitable.

5. How do you feel about the time you spent waiting to be seen by the doctor today?
6. In an emergency, is it hard to get a doctor quickly?
7. When you call to make an appointment, you can get to see the doctor at a time convenient to you.
8. How satisfied are you with the ease and convenience of getting to this facility?
9. Do you find it difficult to reach the nurse or receptionist on the telephone during clinic hours?

C. TECHNICAL QUALITY OF CARE

1. The doctors are careful to explain what the patient is expected to do.
2. How satisfied are you with what the doctor told you about your medical problem and the things you must do to get better or stay well?
3. The doctor examined me carefully before deciding what was wrong.
4. A person feels free to ask the nurse questions.
5. I feel I pretty well understand the doctor's plan for helping me.
6. The doctor told me the name of my illness in words that I could understand.
7. I think this clinic is complete with all the necessary facilities.
8. When I see a new doctor here, he usually checks up on the problems I have had before.
9. Are the doctors careful to explain the side effects of the medicine they prescribe?
10. Doctors continue to treat patients even when they are unsure of what is wrong.

D. HUMANENESS OF CARE

1. How satisfied are you with the way the staff acted toward you as a person?
2. I get better and more personal care here than at some metropolitan hospital.
3. The staff listen to you, they hear you out.
4. Were the staff aware of and interested in your personal circumstances, in hospital and at home?
5. Many of the doctors treat the disease but have no feeling for the patient.
6. How satisfied are you with the courtesy and consideration shown by receptionists and appointment secretaries?
7. The feelings of patients are taken into consideration more and more.
8. Doctors act like they are doing you a favor by treating you.
9. The doctors always do their best to keep you from worrying.
10. I felt that the doctor really knew how upset I was about my illness.

E. ENVIRONMENT OF CARE

1. How satisfied are you with the way the clinic looks and how comfortable it is?
2. The temperature in my room was always comfortable.
3. Did you find your bed to be comfortable?
4. Rate your satisfaction with the way the food was served.
5. Were you satisfied with the standard and quality of the food?
6. How far was there cooperation among patients?
7. The waiting room is neat and clean.

F. CONTINUITY OF CARE

1. The patient sees the same doctor on successive visits to this office.
2. When a patient is seen by a different doctor, the new doctor is aware of the patient's previous visits and illnesses.
3. I hardly ever see the same doctor when I go for care.
4. I feel that my medical record is accurate and kept up to date.

G. ECONOMIC COST OF CARE

1. How satisfied are you with the cost of medical care at this center?
2. Medical insurance should cover more things than it does.
3. The more money you have, the easier it is to see the doctor.
4. How satisfied were you with the processing of your hospital bill?
5. The cost of medical care is reasonable.
6. I am happy with the coverage provided by my medical insurance.
7. The doctors seem to be concerned about whether I can afford the cost of this care.

H. EFFICACY/OUTCOMES OF CARE

1. The staff is competent and qualified.
2. For the most part, I am satisfied with the care I receive.
3. Do you feel that the medical attention you received today is better than what most people get, about the same, or not so good?
4. The doctor has relieved my worries about my illness.
5. The care I receive from doctors in this clinic is just about perfect.

6. I would prefer to see the same doctor again.
7. The staff tell you the truth.
8. Doctors in this hospital are as competent as any other doctors I might find in private practices.
9. In general, how satisfied were you with today's contact with the doctor?

APPENDIX C

PHYSICIAN INTERVIEW FORMAT

1. What is your definition of good medical care?
2. With respect to quality of care, is it important that patients be satisfied?
3. Is patient satisfaction a consideration in the current peer review assessments of care?
4. Where would peer review assessments of care measure on a scale ranging from very objective to very subjective?
5. Where would patient assessments of care measure on a scale ranging from very objective to very subjective?
6. In the long run, how do you think the two types of assessments would compare? Would they approximate each other?
7. In what ways do patients assess medical care and services?
 - a. What is most important to them?
 - b. What is least important to them?
8. Is there a relationship between patient satisfaction and the outcome of care?
 "... " utilization of health care services?
9. How can you tell whether patients are satisfied?
10. In what ways would patient satisfaction survey information be useful to you in your position as _____?
11. If the choice were yours, would you conduct some form of patient survey?
12. How willing are you to make changes based on information from patient surveys?

LIST OF REFERENCES

1. U.S. Department of Defense, Department of Health Education and Welfare, and Office of Management and Budget, Report of the Military Health Care Study, Washington, D.C.: U.S. Government Printing Office, December 1975.
2. U.S. Department of Defense, Defense Resource Management Study, Chapter 5: Military Health Care, Washington, D.C.: U.S. Government Printing Office, February 1979.
3. Comptroller General of the United States, Military Medicine Is In Trouble: Complete Reassessment Needed, Washington, D.C.: U.S. General Accounting Office, August 1979.
4. Joint Commission for Accreditation of Hospitals, The QA Guide: A Resource for Hospital Quality Assurance, Chicago: Joint Commission for Accreditation of Hospitals, 1980.
5. Kisch, A. I. and Reeder, L. G., "Client Evaluation of Physician Performance," Journal of Health and Social Behavior, v. 10, p. 51-58, 1969.
6. Donabedian, A., "Evaluating the Quality of Medical Care," Milbank Memorial Fund Quarterly, p. 166-206, July 1966.
7. DeGeyndt, W., "Five Approaches for Assessing the Quality of Care," Hospital Administration, p. 21-42, Winter 1970.
8. Klein, M. W., Malone, M. F., Bennis, W. G., and Berkowitz, N. H., "Problems of Measuring Patient Care in the Out-patient Department," Journal of Health and Human Behavior, v. 2, p. 138-144, Summer 1961.
9. National Center for Health Services Research, Research Report Series, Needed Research in the Assessment and Monitoring of the Quality of Medical Care, Donabedian, A., p. 22-23, July 1978.
10. U.S. Department of the Navy, Bureau of Medicine and Surgery, Quality Assurance/Risk Management Manual (BUMED-INST 6320.62), proposed instruction not yet released.

11. Campbell, D. T. and Fiske, D. W., "Convergent and Discriminant Validation by the Multitrait-Multimethod Matrix," Psychological Bulletin, v. 56, p. 81-105, March 1959.
12. Institute of Medicine, Assessing Quality in Health Care: An Evaluation, National Academy of Sciences, Washington, D.C., November 1976.
13. U.S. Department of the Navy, Bureau of Medicine and Surgery, Patient Contact Point Command Program Guide, prepared by the Naval Health Sciences Education and Training Command, December 1980.
14. Naval Bureau of Medicine and Surgery, unclassified message R122235Z to all naval medical facilities, Subject: Patient Contact Courtesy, 12 October 1979.
15. Lebow, J. A., "Consumer Assessments of the Quality of Medical Care," Medical Care, v. 12, p. 328-337, April 1974.
16. Caplan, E. K. and Sussman, M. B., "Rank Order of Important Variables for Patient and Staff Satisfaction with Out-patient Service," Journal of Health and Human Behavior, v. 7, p. 133-137, July 1966.
17. Apostle, D. and Order, F., "Factors that Influence the Public's View of Medical Care," Journal of the American Medical Association, v. 202, p. 140-146, 13 November 1967.
18. Doyle, B. J. and Ware, J. E., Jr., "Physician Conduct and Other Factors that Affect Consumer Satisfaction with Medical Care," Journal of Medical Education, v. 52, p. 793-801, November 1967.
19. Wolf, M. H., Putnam, S. M., James, S. A., and Stiles, W. B., "The Medical Interview Satisfaction Scale: Development of a Scale to Measure Patient Perceptions of Physician Behavior," Journal of Behavioral Medicine, v. 1, p. 391-401, 1978.
20. Houston, C. S. and Pasanen, W. E., "Patients' Perceptions of Hospital Care," Hospitals, JAHA, v. 46, p. 70-74, 16 April 1972.
21. Edler, D. and Kukulski, S., "A Scale for Measuring Patient Satisfaction with Hospital Services," Hospital Community Psychology, v. 26, p. 15-16, January 1975.

22. Osterweis, M. and Howell, J. R., "Administering Patient Satisfaction Questionnaires at Diverse Ambulatory Care Sites," Journal of Ambulatory Care Management, v. 2, p. 67-88, August 1979.
23. Lebow, J., "Evaluation of an Outpatient Pediatric Practice Through the Use of Consumer Questionnaires," Medical Care, v. 13, p. 250-255, March 1975.
24. Fisher, A. W., "Patients' Evaluation of Outpatient Medical Care," Journal of Medical Education, v. 46, p. 238-244, March 1971.
25. Stratmann, W. C., "A Study of Consumer Attitudes About Health Care: The Delivery of Ambulatory Services," Medical Care, v. 13, p. 537-548, July 1975.
26. Manglesdorff, A. D., "Patients' Satisfaction with an Army Family Practice Setting," Journal of Community Psychology, v. 8, p. 272-275, July 1980.
27. Wilson, J. L., "Patient Satisfaction in a Navy Family Practice Clinic," The Journal of Family Practice, v. 4, p. 594-595, 1977.
28. Roughmann, K. J., Hengst, A., Zastowny, T. R., "Satisfaction with Medical Care: Its Measurement and Relation to Utilization," Medical Care, v. 17, p. 461-477, May 1979.
29. Cottrell, K. M., "Outpatient Survey of the North Western Region," Hospital and Health Services Review, v. 75, p. 432-434, December 1979.
30. Ware, J. E., Jr., Wright, W. R., Snyder, M. K., and Chu, G. C., Consumer Perceptions of Health Care Services: Implications for the Academic Community, The Rand Paper Series, p. 5440, June 1975.
31. Hulka, B. S., Zyzanski, S. J., Cassel, J. C., and Thompson, R. N., "Scale for the Measurement of Attitudes Toward Physicians and Primary Medical Care," Medical Care, v. 8, p. 429-435, September-October 1970.
32. King, S. H. and Goldman, B., "Variables in Patient Satisfaction with Medical Care," Journal of the American College Health Association, v. 24, p. 100-105, December 1975.

33. Zyzanski, S. J., Hulka, B. S., and Cassel, J. C., "Scale for the Measurement of "Satisfaction" with Medical Care: Modifications in Content, Format and Scoring," Medical Care, v. 12, p. 611-620, July 1974.
34. Ware, J. E., Jr. and Snyder, M. K., "Dimensions of Patient Attitudes Regarding Doctors and Medical Care Services," Medical Care, v. 13, p. 669-682, August 1975.
35. Southern Illinois University School of Medicine, A Study of Twenty-Two Hypothesized Dimensions of Patient Attitudes Regarding Medical Care, National Technical Information Service, Report Number MHC 74-10 by Ware, J. E., Jr. and Snyder, M. K., March 1974.
36. Counte, M. A., "An Examination of the Convergent Validity of Three Measures of Patient Satisfaction in an Outpatient Treatment Center," Journal of Chronic Diseases, v. 32, p. 583-588, 1979.
37. Linn, L. S., "Factors Associated with Patient Evaluation of Health Care," Milbank Memorial Fund Quarterly, v. 53, p. 531-548, Fall 1975.
38. Wriglesworth, J. M. and Williams, J. T., "The Construction of an Objective Test to Measure Patient Satisfaction," International Journal of Nursing Studies, v. 12, p. 123-132, 1975.
39. Ware, J. E., Jr., Davies-Avery, A., and Stewart, A. L., "The Measurement and Meaning of Patient Satisfaction," Health and Medical Care Services Review, v. 1, p. 1-15, January/February 1978.
40. Uldry, J. R., Measuring Patient Satisfaction with the Patient Satisfaction Scale, Family Planning Evaluation Project Report Number 21-72, University of North Carolina, School of Public Health, Chapel Hill, N.C., 31 May 1972.
41. Storch, J. L., "Consumer Rights and Health Care," Nursing Administration Quarterly, v. 4, p. 107-115, Winter 1980.
42. Harris, R. and Whipple, D., "The Perceived Quality of Health Care and Use of Military Health Facilities," U.S. Navy Medicine, v. 66, p. 3-8, October 1975.
43. Kaufmann, S. J., Sorensen, J. L., and Raeburn, S., "Synthesizing the Interests of Consumers, Citizens, and Administrators in Gathering Client Feedback," Evaluation and Program Planning, v. 2, p. 263-267, 1979.

44. Starr, G. C., Norris, R., Patil, K. D., and Young, P. R., "Patient Expectation: What Is Comprehensive Health Care?" The Journal of Family Practice, v. 8, p. 161-166, 1979.
45. American Hospital Association, "FDA Challenged for Delaying Drug Inserts," Hospital Week, v. 17, 17 April 1981.
46. Selltitz, C., Wrightsman, L. S., and Cook, S. W., Research Methods in Social Relations, Third Edition, p. 294-298, Holt, Rinehart, and Winston, 1976.
47. Harris, R. T., "Improving Patient Satisfaction Through Action Research," Journal of Applied Behavioral Science, v. 14, p. 382-399, 1978.
48. Nelson, E. C., Jacobs, A. R., and Johnson, K. G., "Patients Acceptance of Physician's Assistants," Journal of the American Medical Association, v. 228, p. 63-67, April 1974.
49. Lanier, R. A., Chesney, A. P., and Trimble, J. E., "Sociological Factors Influencing Utilization of a Physician's Assistant in a Satellite Clinic," The PA Journal, v. 7, p. 73-84, Summer 1977.
50. Wooley, F. R., Kane, R. L., Huges, C. C., and Wright, D. D., "The Effects of Doctor-Patient Communication on Satisfaction and Outcome of Care," Social Science and Medicine, v. 12, p. 123-128, 1978.
51. Weinerman, E. R., "Patients' Perceptions of Group Medical Care," American Journal of Public Health, v. 54, p. 880-889, June 1964.
52. Rand Corporation, Patients' Acceptance of Physician's Assistants in Air Force Primary Medical Clinics, by David M. Jolly, p. 47-66, September 1980.
53. Risser, N. L., "Development of an Instrument to Measure Patient Satisfaction with Nurses and Nursing Care in Primary Settings," Nursing Research, v. 24, p. 45-52, January-February 1975.

INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Technical Information Center Cameron Station Alexandria, Virginia 22314	2
2. Library, Code 0142 Naval Postgraduate School Monterey, California 93940	2
3. Department Chairman, Code 54Js Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
4. Assoc. Professor David R. Whipple, Code 54Wp Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	10
5. Assoc. Professor Reuben T. Harris, Code 54He Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	5
6. LT Mark E. Babbitt, MSC, USN Box 431 Naval Regional Medical Center Camp Pendleton, California 92055	4

Thesis

193303

B10505 Babbitt

c.1

Patient satisfaction: an examination of the concept and presentation of a strategic approach for its assessment and use within a health care system.

thesB10505

Patient satisfaction :



3 2768 001 91107 6

DUDLEY KNOX LIBRARY